

CLAIMS

What is claimed is:

1. A method of selective exposure of a resist, comprising:
providing radiation having a cross-section shape that is asymmetric;
reflecting the asymmetric radiation off a reflective reticle; and
directing the asymmetric radiation to the resist.
2. The method of claim 1, wherein the providing includes providing
asymmetric radiation that has a greater range of angle incidence in a first direction
than in a second direction that is perpendicular to the first direction.
3. The method of claim 2, wherein the ratio of the range of the angle
incidence between the first direction and the second direction is greater than 1.
4. The method of claim 1, wherein the providing includes providing
asymmetric radiation that has an elliptical shape in phase space.
5. The method of claim 1, wherein the providing includes providing
asymmetric radiation that has an elliptical ring shape in phase space.
6. The method of claim 5, wherein the elliptical ring shape has a substantially
uniform ring width.
7. The method of claim 5, wherein the elliptical ring shape has a non-uniform
ring width.
8. The method of claim 1, wherein the providing includes transforming
symmetric radiation to the asymmetric radiation.
9. The method of claim 8, wherein the transforming includes reflecting the
symmetric radiation of a mirror to produce the asymmetric radiation.

10. The method of claim 9, wherein the reflecting off the mirror includes reflecting off a fly's eye mirror having a plurality of facets.

11. The method of claim 9, wherein the reflecting off the mirror includes reflecting off a fixed mirror.

12. The method of claim 8, wherein the transforming includes passing the radiation through one or more lenses to produce the asymmetric radiation.

13. The method of claim 8, wherein the transforming includes passing the symmetric radiation through one or more slits to produce the asymmetric radiation.

14. The method of claim 8, wherein the symmetric radiation includes non-coherent radiation from a laser source.

15. The method of claim 1, wherein the reflecting off the reticle includes reflecting the asymmetric radiation at an average angle of incidence, and wherein asymmetry in the asymmetric radiation substantially compensates for bias in pattern transfer from the reticle to the resist due to the average angle of incidence.

16. The method of claim 15, wherein the providing includes changing the asymmetry of the asymmetric radiation in response to changes in the average angle of incidence.

17. The method of claim 15, wherein the average angle of incidence is between about 2 degrees and about 8 degrees.

18. The method of claim 1, wherein the asymmetric radiation includes extreme ultraviolet radiation having a wavelength between about 3 nm and about 70 nm.

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19. A lithography system comprising:
an asymmetric radiation source; and
a reflective reticle that receives asymmetric radiation from the asymmetric radiation source, and directs radiation toward a target to be selective exposed.

20. The system of claim 19, wherein the radiation source produces extreme ultraviolet radiation having a wavelength between about 3 nm and about 70 nm.